

REMARKS

In response to the Office Action dated November 14, 2006 ("the Action"), Applicant(s) respectfully requests reconsideration based on the above claim amendment and the following remarks. Claims 1-41 and 54-64 are pending in the application. Claims 42-53 were previously canceled in light of a restriction requirement.

A. The Allowable Subject Matter

Applicant acknowledges, with appreciation, the Examiner's statement that Claims 21, 24 and 25 would be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims. Applicant has amended Claims 21 and 24 into independent form and to substantially incorporate the limitations from the intervening claims. Claim 25 depends from Claim 24. Applicant submits that Claims 21, 24 and 25 are in condition for allowance, which action is respectfully requested.

B. Claim Objections

The noted informalities identified in Claims 10 and 57 have been obviated above.

C. Claim 7

Applicant has amended Claim 7 as suggested by the Examiner to more clearly claim the configuration of the cuff in use.

D. The 102(b) Rejections in view of U.S. Patent No. 4,033,337

The Action rejects Claims 1-4, 14, 15 and 27-33 as being allegedly anticipated by U.S. Patent No. 4,033,337 to Raczkowski ("Raczkowski"). The blood pressure cuff assembly proposed by Raczkowski has relatively rigid members 24, 26 sewn into hems at either end of the cuff strip 20 to stiffen the body of the cuff against widthwise flexing (col. 2, lines 39-40). The cuff also has stiffener 28 sewn into a guideway 29 at the end of the strip between the two ends of the strip 20 next to the stiffener 24 for the same purpose (col. 2, lines 40-42). The

main body strip 20 is made of a flexible sheet material such as non-stretchable fabric (col. 2, lines 15-16). There is no need to configure the stiffeners of Raczkowski to inhibit roll-down, as the strip 20 is not stretchable.

Independent Claim 1 recites:

1. An inflatable blood pressure cuff assembly comprising:
an inflatable elongate cuff member having opposing long edges and opposing short edge portions with an inflatable fluid chamber therein; and
a resilient sleeve attached to a respective one of the opposing short edge portions of the inflatable elongate cuff member, wherein the sleeve comprises at least one substantially longitudinally extending rib support member, wherein the sleeve has a body sized and configured to elastically expand to snugly and generally conformably fit on a limb of a patient prior to inflation of the cuff member whereby the at least one rib is configured to inhibit the sleeve from rolling up and/or down a limb of a patient.

Raczkowski fails to teach or suggest the use of a discrete support sleeve, much less a conformable sleeve with at least one rib as recited in Claim 1. As such, Raczkowski fails to anticipate Claims 1-4, 13, 15, and 27-33 for at least the emphasized features. Applicant respectfully requests that this rejection be withdrawn.

Applicant also notes that the Action alleged that Raczkowski anticipates Claims 27, 28 and 30 because the sleeve in Raczkowski is capable of being released from or affixed to the cuff. Applicant respectfully disagrees. Raczkowski shows a two-piece cuff with an expandable configuration using a loop or elastic band, but there is no (conformable) sleeve that is affixed or releasably attached. Applicant respectfully submits that Raczkowski also fails to teach or suggest these features as well.

E. The 102(b) Rejections in view of U.S. Patent No. 5,669,390

The Action also rejects Claims 34-36 and 38 as being anticipated by U.S. Patent No. 5,669,390 to McCormick et al. ("McCormick"). The Action states that McCormick teaches a resilient sleeve 1 and at least one rib 4. However, the sleeve is a loose hanging sleeve that acts as a protective barrier that is formed from a fluid impervious material and the "rib" is an elastic band that extends horizontally about the top of the sleeve rather than axially or

longitudinally over the body of the sleeve.

34. An inflatable blood pressure cuff assembly comprising:
an inflatable elongate cuff member having opposing long edges and opposing short edge portions with a fluid chamber therein, in operation, the short edge portions being configured to wrap about a body portion of a user and connect to each other; and
a resilient sleeve configured to reside under the wrapped cuff member, wherein the sleeve comprises at least one substantially axially extending rib support member, and wherein at least a major portion of the sleeve is configured to elastically expand to snugly and substantially conformably fit on a limb of a patient.

Applicant respectfully submits that Claims 34-36 and 38 are not anticipated by McCormick for at least the emphasized features noted above. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

F. The 103 Rejections

The Action also rejects many of the claims as being obvious over Raczkowski combined with U.S. Patent No. 5,797,851 to Byrd ("Byrd") or combined with U.S. Patent No. 5,344,406 to Spooner. The Action concedes that Raczkowski is silent as to whether the sleeve and cuff are attached (although the Action had rejected Claims 27-30 as being anticipated by Raczkowski, Action p. 5).

The Action cites Byrd for teaching that the cuff 22 is attached to a resilient sleeve 14 and has a bladder negation portion 14 for releasably bonding the bladder to the medical bladder. However, the alleged "sleeve" of Byrd is the strip that wraps around and holds the bladder 22 before and during inflation. It is not conformable and there is no rib. Even combined, the sleeve 14 of Byrd and the cuff of Raczkowski would yield only a cuff with ribs on the cuff body, not ribs on a conformable inner sleeve. As such, Applicant respectfully submits that the claims are patentable over this combination.

Further, and notably, the sleeve of Spooner fits over the hand of a patient to stabilize and secure an IV device. One of skill in the art would not have combined the teachings of Spooner with the "non-stretch fabric" blood pressure cuff of Raczkowski. Further, there is no rib on the sleeve of Spooner and such would also appear to provide discomfort to the "soft"

material that allows a patient's hand to easily and full move therein (Abstract). Even combined, the sleeve of Spooner would reside under the blood pressure cuff of Raczkowski – notably without a rib on the conformable sleeve. It is also noted that the soft open weave IV hand sleeve of Spooner would not be able to help support a blood pressure cuff on a limb of a patient. Applicant respectfully submits that the claims are patentable over the teachings of Raczkowski even as combined with Spooner.

Regarding Claim 11, Applicant states that even combined Byrd and Raczkowski fail to teach or suggest the use of a conformable sleeve that can stretch to accommodate the different size users as recited in Claims 10-12. Applicant submits that these claims are patentable as depending from a patentable claim and for reciting independently patentable subject matter.

The Action also opines that the claimed sensor chamber recited in Claims 17-19 (and 19-20 and 23) are obvious over Raczkowski combined with U.S. Patent No. 5,492,129 to Greenberger. Raczkowski proposes a hole that extends through the cuff and bladder that allows the head of a stethoscope to reside inside the cuff to contact the skin. Notably, Raczkowski proposes a threaded shaft with a washer and nut that holds the stethoscope head in position (col. 3, lines 20-27). The holes in the cuff and bladder "are required to be aligned" (col. 3, line 28). Greenberger proposes a noise-reducing stethoscope. Even combined, the references fail to teach or suggest an elongate channel provided by the conformable sleeve that, in use, resides inside the wrapped cuff. Applicant respectfully submits that Claims 17-19 and the claims that depend therefrom are independently patentable over the cited prior art.

The Action also rejects Claims 54-60, 63 and 64 as being obvious over U.S. Patent No. 5,626,142 to Marks ("Marks") in view of Raczkowski and Claims 54-59 and 61-64 over Marks in view of McCormick and further in view of U.S. Patent No. 4,967,758 to Masciarotte ("Masciarotte"). The Action alleges that Marks teaches an automated blood pressure monitoring system but is silent as to the details of the cuff assemblies. The Action then states that Raczkowski or McCormick teaches the cuff assembly details.

Claim 54 recites:

54. An automated blood pressure monitoring system, comprising:

a plurality of inflatable blood pressure cuff assemblies, each sized and configured to accommodate a different patient size range, each cuff assembly comprising an elongate cuff member having opposing long edges and opposing short edge portions with an inflatable fluid chamber therein and a resilient sleeve having a predetermined patient size range that is attachable and/or attached to a respective one of the opposing short edge portions of the inflatable elongate cuff member, wherein the sleeve comprises at least one substantially axially extending rib support member, and wherein the sleeve has a body sized and configured to elastically expand to snugly and substantially conformably fit on a limb of a patient prior to closing the cuff member about the limb of the patient whereby the at least one rib is configured to inhibit the sleeve from rolling up and/or down the limb of the patient;

an inflation unit in fluid communication with a selected one of the blood pressure cuffs and configured to generate a pressure sufficient to restrict blood flow in a selected artery of a patient proximate the sleeve and the blood pressure cuff;

means for releasing the inflation pressure in the blood pressure cuff; and

means for detecting a signal corresponding to blood pressure measurements of the patient.

Applicant submits that, even combined, the references fail to teach or suggest at least the emphasized features.

In view of the foregoing, Applicant respectfully submits that the claims are patentable over the cited prior art, and requests that the rejections be withdrawn.

G. New Dependent Claims

Applicant has added new dependent Claims 65-70, pairs of which depend from each of Claims 1, 34 and 54. Applicant respectfully submits that the features are supported by the application/figures and are patentable over the cited prior art.

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H. Other

Out of an abundance of caution, Applicant is submitting a Supplemental IDS listing references listed on a Form PTO 892 in the parent application, U.S. Application Serial No. 10/292,174, filed November 12, 2002.

CONCLUSION

Accordingly, Applicant submits that the present application is in condition for allowance and the same is earnestly solicited. Should the Examiner have any matters outstanding of resolution, she is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

Respectfully submitted,

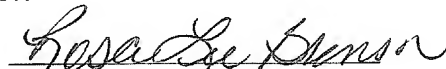


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CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted electronically to the U.S. Patent and Trademark Office on February 6, 2007.


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